

APPENDIX A

SCOPING MATERIALS AND RESPONSES

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 - **Randall E. Sanders, ODNR Division of Real Estate and Land Management email**
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Department of Energy

Golden Field Office
1617 Cole Boulevard
Golden, Colorado 80401-3393

July 31, 2006

TO: DISTRIBUTION LIST ATTACHED

SUBJECT: Environmental Assessment for the Ohio State 4-H Green Building Project with Geothermal Mechanical Systems in Franklin County, Ohio

The U.S. Department of Energy (DOE), in compliance with the National Environmental Policy Act of 1969 (NEPA), will be preparing an environmental assessment (EA) for the Ohio State 4-H Green Building Project (the Center) with Geothermal Mechanical Systems (GMS) in Franklin County, Ohio. DOE is proposing to provide federal funding toward the construction of the Center, which constitutes a major federal action as defined by NEPA. A detailed description of the site and the proposed action is included in the attachment to this letter. DOE is the lead agency for this EA, and other federal, state, and local agencies are invited to participate in the environmental documentation process. DOE is requesting input on the NEPA process, proposed action and alternatives, and the environmental issues to be addressed in the EA.

The Draft EA is expected to be available for agency and public comment in September 2006. To facilitate preparation of the EA, DOE is requesting agency input on known resources that could be affected by construction of the 4-H center. **Please provide your input on or before August 11, 2006.** Any questions concerning the proposal should be directed to our consultant, Science Applications International Corporation (SAIC). The point of contact is Ms. Hallie Serazin. She can be reached at (614) 791-3342 if you have any questions or concerns. Please forward your written comments to Ms. Serazin, in care of SAIC, 4700 Lakehurst Court, Suite 110, Dublin, Ohio 43016 no later than August 11, 2006. Thank you for your assistance.

We look forward to hearing from you.

Sincerely,

Steve Blazek
NEPA Compliance Officer

Enclosure



Attachment

ENVIRONMENTAL ASSESSMENT (EA) FOR THE OHIO STATE GREEN BUILDING PROJECT WITH GEOTHERMAL MECHANICAL SYSTEMS (GMS) IN FRANKLIN COUNTY, OHIO

PROPOSED ACTION

The Ohio State University (OSU) plans to construct the Ohio State 4-H Green Building on its Columbus, Ohio campus northwest of the intersection of Fred Taylor Drive and West Lane Avenue (see Figures 1, 2, and 3). The Center will be the first "green" building on OSU campus and will utilize a hybrid geothermal mechanical system. The U.S. Department of Energy (DOE) is proposing to provide federal funding toward the construction of the Center, which constitutes a major federal action as defined by the National Environmental Policy Act (NEPA).

SITE BACKGROUND AND DESCRIPTION

The Ohio State 4-H Green Building Project is planned as a multi-disciplinary learning center, with classrooms and learning labs as well as state and administrative offices for the 4-H program. As the home of Ohio 4-H—and the first facility of its kind on a land-grant university campus—the 4-H Center would feature:

- Flexible multi-purpose space for hands-on program opportunities for youth, volunteers, professional leaders and supporters.
- Educational conference and classroom facilities.
- State-of-the-art technology linking the center to Ohio's 88 counties, the nation, and the world.
- "Green" features such as a geo-thermal mechanical system; reduced water and energy consumption; "green housekeeping plan."

The Center would provide a state-of-the-art site for program activities designed to involve and engage increased numbers of Ohio youth, volunteer leaders, and for Ohio State faculty and staff to further develop the field of positive youth development through teaching and research. The Center would provide access to Ohio State research and resources through distance learning opportunities, as well as through on-site conferences, workshops, and seminars for youth and adults—all of which will serve to strengthen local 4-H programs. Having a physical building/structure on the Ohio State campus will help to ensure that 4-H will always be a part of the university.

The 4-H Center building would be approximately 50,000 gross square feet, and would have a number of outdoor activity areas associated with it. The building would be sited to preserve the park-like atmosphere of the project site, including the mature trees, extensive lawn and grade change. The project site would include parking for 58 vehicles.

The intended use of DOE funding for this project is to support the construction phase of two areas within the Ohio 4-H Center designed for energy efficiency. 1.) A hybrid geothermal

system for heating and cooling and 2) the structural system incorporating a recycled steel manufacturing process to produce structural steel members.

- 1) The geothermal heating and cooling system is a hybrid geothermal (water source) closed loop heat pump system. Heat is extracted from or rejected to the earth through a vertical geothermal heat exchanger buried under the Center's parking lot. The geothermal heat exchanger would consist of a series 72 drilled holes, five inches in diameter by 280 feet deep. Additional heat rejection would be accomplished through a closed circuit cooling tower. Circulating fluid would not come into contact with soil.
- 2) Structural steel wide flanges would be the main structural component in the 4-H Center structural system. The project would require 282 tons of structural steel that would be produced in domestic mills using the Electric Arc Furnace (EAF) process and would contain at least 90% total recycled content. The use of recycled structural steel allows energy that would be used to extract raw material from the ground to be conserved and diverts waste from old steel products away from landfills.

PURPOSE AND NEED

The purpose of the Proposed Action, the decision to provide federal funding for the construction of the planned Ohio State 4-H Green Building Project with hybrid GMS technology, is to support new technology with the potential to create broad public benefits. The Proposed Action would demonstrate the efficiency of geothermal mechanical systems and the benefits of a "green housekeeping plan" in an educational environment. The existing 4-H Center on the OSU campus is a small space in the Agricultural Administration Building that does not provide the visibility needed for the integration of 4-H programs into the rapidly expanding university complex and does not allow for the implementation of green building technologies. The Center would serve 4-H youth, volunteers, and youth professionals from around the state of Ohio, the nation, and the world. It would be a training resource for other youth organizations, as well as a location for OSU Extension programming reaching throughout Ohio.

The U.S. Congress has acknowledged the merit of this project by providing specific funding through DOE. Based on Congressional action, DOE has funding available to support OSU's participation in the proposed Ohio State 4-H Green Building project.

PROPOSED ACTION AND ALTERNATIVES

At this time, the Proposed Action and the No Action Alternative are the only alternatives to be addressed in the EA. The Proposed Action involves the provision of federal funds toward construction of the Ohio State 4-H Green Building Project with GMS. The No Action Alternative would involve a DOE decision not to provide funding for the project. For NEPA compliance purposes and to create a meaningful No Action scenario and baseline conditions, it has been assumed that the 4-H Center with GMS would not be constructed without DOE funding. However, it is possible that the applicant could proceed without DOE funding. A privately funded project scenario would be identical, or at least similar to, the Proposed Action. If the applicant (OSU) proceeds without DOE or other federal funding, the project would not be subject to NEPA review.

ENVIRONMENTAL TOPICS TO BE ADDRESSED

The proposed EA will address primary, direct, indirect, secondary and cumulative impacts of the Proposed Action and Alternatives. Beneficial and adverse, on-site and off-site, construction, demolition, and operation and maintenance impacts will be discussed, as appropriate. The environmental topics to be discussed in the EA include:

Land Use, Planning, Socioeconomics and Public Policy
Traffic and Circulation
Air Quality and Noise
Visual Quality/Aesthetics
Hazardous Wastes
Water Resources
Soils and Geology
Biological Resources
Cultural Resources
Waste Management
Public Facilities, Services and Utilities
Energy

SCHEDULE

The schedule for key milestones to complete the NEPA review process is:

Close of Scoping Period	August 11, 2006
Public Distribution of the Draft EA	September 2006

This letter and the draft EA, when it is available, will be posted on the DOE Golden Field Office electronic public reading room at <http://www.eere.energy.gov/golden/>.

Please direct written and oral comments to:

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Dublin, OH 43016
(614) 791-3342
(fax) (614) 793-7620
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FIGURES

Figure 1 – Ohio State 4-H Green Building Project, Regional Setting
Figure 2 – Ohio State 4-H Green Building Project, Project Site
Figure 3 – Ohio State 4-H Green Building Project, Project Site on U.S.G.S. Topographic Map

Ohio State 4-H Green Building Project with GMS EA Scoping List

Ohio Historic Preservation Office
Resource Protection and Review
Attn: Mr. Mark J. Epstein, Department Head
567 E. Hudson Street
Columbus, Ohio 43211-1030

Ohio Environmental Protection Agency
Lazarus Government Center
Attn: Mr. Randy Berneck
122 South Front Street
Columbus, Ohio 43215

Kent E. Kronnemeyer, Supervisor
U.S. Fish and Wildlife Services
6950 Americana Parkway, Suite H
Reynoldsburg, Ohio 43068-4132

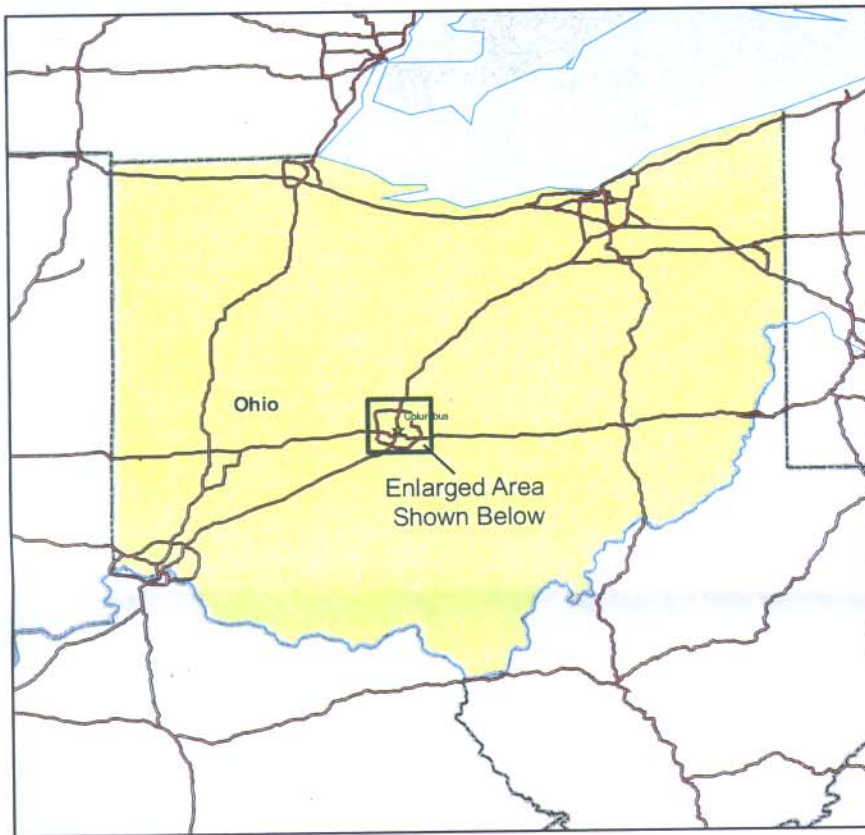
Franklin County Department of Development
Attn: Erin J. Prosser, Planner
280 East Broad Street, Suite 202
Columbus, Ohio 43215

Ohio Department of Natural Resources
Division of Geological Survey
2045 Morse Road, Building C1
Columbus, Ohio 43229-6693

Ohio Department of Natural Resources
Division of Soil and Water Conservation
2045 Morse Road, Building B3
Columbus, Ohio 43229-6693

Ohio Department of Natural Resources
Division of Natural Areas and Preserves
Ohio Natural Heritage Program
2045 Morse Road, Building F-1
Columbus, Ohio 43229

Ohio Department of Natural Resources
Division of Water
Attn: Mike Angle, Ground Water Mapping and Technical Services
2045 Morse Road, Building E3
Columbus, Ohio 43229-6693



Legend

- ★ Capital City
- Interstate Highways
- Rivers
- Lakes
- Land
- State Boundaries
- Ohio
- Canada



0 50 100 200 Miles



**Ohio State 4-H
Green Building Project**

FIGURE 1.

Drawn By: cornelld
Date: 2006/07/26

**Nationwide and Ohio Farm Bureau 4-H Center,
Regional Setting***

